

T-A1 Algebra 1 Week 9

$$a + 5 = 8$$

$$\begin{array}{r} -5 \\ -5 \end{array}$$

$$\boxed{a = 3}$$

$$c \begin{array}{|l} -12 \\ +12 \end{array} = \begin{array}{|l} -5 \\ +12 \end{array} \begin{array}{l} \leftarrow 12 \\ \leftarrow -5 \end{array}$$

$$\boxed{c = 7}$$

$$14 = d + 9$$

$$\begin{array}{r} -9 \\ -9 \end{array}$$

$$\boxed{5 = d}$$

$$18 = c - 6$$

$$\begin{array}{r} +6 \\ +6 \end{array}$$

$$\boxed{24 = c}$$

$$2x + 3 = 11$$

$$\begin{array}{r} -3 \\ -3 \end{array}$$

$$\frac{2x}{2} = \frac{8}{2}$$

$$\boxed{x = 4}$$

$$23 = 4x - 1$$

$$\begin{array}{r} +1 \\ +1 \end{array}$$

$$\frac{24}{4} = \frac{4x}{4}$$

$$\boxed{x = 6}$$

$$4 \left(\frac{x+3}{4} \right) = (-8)4$$

$$\rightarrow \begin{array}{r} x+3 \\ -3 \end{array} = \begin{array}{r} -32 \\ -3 \end{array} \quad \boxed{x = -35}$$

$$12 = \frac{x}{3} - 8$$

$$\begin{array}{r} +8 \\ +8 \end{array}$$

$$3(20) = \left(\frac{x}{3} \right) 3$$

$$\boxed{x = 60}$$

inverse property

$$7 \left(\frac{3x}{7} \right) = (-2)7$$

$$\frac{3x}{7} = \frac{-14}{7} \quad \boxed{x = \frac{-14}{3}}$$

$$\frac{x}{5} + 7 = 32$$

$$\begin{array}{r} -7 \\ -7 \end{array}$$

$$5 \left(\frac{x}{5} \right) = (25)5$$

$$\boxed{x = 125}$$

$$\frac{7}{3} \left(\frac{3x}{7} \right) = \left(\frac{-2}{1} \right) \frac{7}{3} \quad \text{inverse property}$$

$$x = \frac{-14}{3}$$

2-3 Solving Multi-step Equations

$$3a + 5 - x + 7x - 2a$$

no equal sign
simplify
"combine like terms"

$$3a - 2a \quad (-x) + 7x \quad + 5$$

$$a + 6x + 5$$

$$3 \text{ (apple)} + 4 \text{ (orange)} + 7 \text{ (apple)} - 2 \text{ (orange)}$$

$$10 \text{ (apple)} + 2 \text{ (orange)}$$

$$3x + 4y + 7x - 2y$$

$$10x + 2y$$

$$\textcircled{7b} - \textcircled{b} - \textcircled{x} + 5 - \textcircled{2x} - \textcircled{7b} \quad \cancel{7b} + \cancel{(-7b)} + (-b)$$

$$b \rightarrow 7b - b - 7b \rightarrow 7b + (-1)b + (-7b) = -b$$

$$x \rightarrow -x - 2x \rightarrow -3x$$

$$\text{const} \rightarrow +5 \rightarrow +5$$

$$\boxed{-b - 3x + 5}$$

$$\textcircled{2r} + 3s - \textcircled{5r}$$

$$\boxed{-3r + 3s}$$

$$\textcircled{3k} - \underline{2x} + \textcircled{6k} + 5$$

$$3k + 6k = 9k$$

$$\boxed{9k - 2x + 5}$$

$$\textcircled{4a} + \boxed{3} - \textcircled{2y} - \textcircled{5a} - \boxed{7} + \textcircled{4y}$$

$$4a - 5a = -a$$

$$-2y + 4y = 2y$$

$$3 - 7 = -4$$

$$\boxed{-a + 2y - 4}$$

$$5(3x + 12) = -15$$

$$15x + 60 = -15$$
$$\begin{array}{r} 15x + 60 = -15 \\ -60 \quad -60 \\ \hline 15x = -75 \end{array}$$

$$\frac{15x}{15} = \frac{-75}{15}$$

$$x = -5$$

$$-4d + 2(3 + d) = -14$$

$$-4d + 6 + 2d = -14$$

$$-4d + 2d$$

$$-2d + 6 = -14$$
$$\begin{array}{r} -2d + 6 = -14 \\ -6 \quad -6 \\ \hline -2d = -20 \end{array}$$

$$\frac{-2d}{-2} = \frac{-20}{-2}$$

$$d = 10$$

DISTRIBUTE ✓✓

COMBINE ✓✓

SOLVE ✓

$$7 + 2(a - 3) = -9$$

$$7 + 2a - 6 = -9$$
$$\begin{array}{r} 7 + 2a - 6 = -9 \\ -6 \quad -6 \\ \hline 1 + 2a = -9 \end{array}$$

$$1 + 2a = -9$$
$$\begin{array}{r} 1 + 2a = -9 \\ -1 \quad -1 \\ \hline 2a = -10 \end{array}$$
$$\frac{2a}{2} = \frac{-10}{2}$$
$$a = -5$$

$$5(b + 4) - 6b = -24$$

$$5b + 20 - 6b = -24$$

$$5b - 6b + 20 = -24$$

$$-b + 20 = -24$$
$$\begin{array}{r} -b + 20 = -24 \\ -20 \quad -20 \\ \hline -b = -44 \end{array}$$

$$\frac{-b}{-1} = \frac{-44}{-1}$$

$$b = 44$$

No quiz
due tonight
Quiz 8
Nov 10th

HW
Ch 2-3 evens
Supplemental WS
Online HW 9 (Thurs)
Quiz 9 (Thurs)
due by November 17th